

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A data transmitting system for transmitting data to be processed through a TCP/IP-based network to which a plurality of devices including a first device and a second device are connected, the data to be processed being transmitted by said first device and received by said second device,

said first device including:

an identification information obtaining system that transmits first data ~~containing a second multicast address~~ through the network using a first address which does not specify a destination to obtain identification information of the plurality of devices except said first device,

said second device including:

an identification information transmitting system that transmits second data containing the identification information of said second device through the network using ~~the~~ second multicast address ~~contained in the first data~~ in response to the first data transmitted by said identification information obtaining system of said first device;

said first device further including:

a data transmitting system that transmits the data to be processed through the network using a third multicast address ~~so that, said second device being designated as a destination of the data to be processed is received by said second device which is one of devices which transmit the identification information to said identification information obtaining system,~~

said second device further including:

a data receiving system that is configured to receive data transmitted from said data transmitting system using the third multicast address if the data transmitted from said transmitting system is data having said second device as the designated destination, ~~receives the data to be processed transmitted by said data transmitting system of said first device.~~

2. (Original) The data transmitting system according to claim 1, wherein the first address is a first multicast address.

3. (Canceled)

4. (Original) The data transmitting system according to claim 1, wherein said first device further includes a selecting system that selects one of the devices which transmit the identification information to said identification information obtaining system,

wherein said data transmitting system transmits the identification information of the selected one of the devices with the data to be processed through the network using the third multicast address,

wherein the selected one of the devices is the second device.

5. (Original) The data transmitting system according to claim 1, wherein said identification information obtaining system of said first device incorporates the identification information of said first device into the first data,

wherein said identification information transmitting system of said second device incorporates the identification information of said first device contained in the first data into the second data.

6. (Original) The data transmitting system according to claim 1, wherein the identification information of the devices on the network includes at least one of a device name, location information, a MAC address and an IP address of a device on the network.

7. (Original) The data transmitting system according to claim 2, wherein the first multicast address, the third multicast address and the second multicast address are different from each other.

8. (Original) The data transmitting system according to claim 2, wherein at least two of the first multicast address, the third multicast address and the second multicast address are equal to each other.

9. (Original) The data transmitting system according to claim 2, wherein all of devices configured to be said second device on the network receive data transmitted by using the first multicast address.

10. (Original) The data transmitting system according to claim 1, wherein part of devices configured to be said second device on the network receives data transmitted by using the third multicast address.

11. (Original) The data transmitting system according to claim 1, wherein only said first device of the devices connected to the network receives data transmitted by using the second multicast address.

12. (Original) The data transmitting system according to claim 1, further comprising an address determining system that determines the second multicast address.

13. (Original) The data transmitting system according to claim 1,
wherein said data receiving system of said second device transmits third data indicating an acknowledgement of receipt of the data to be processed when said data receiving system receives the data to be processed, said data receiving system transmitting the third data through the network using a fourth multicast address,

wherein said data transmitting system of said first device receives the third data transmitted by said data receiving system of said second device.

14. (Original) The data transmitting system according to claim 13, further comprising an address determining system that determines the third multicast address and the fourth multicast address.

15. (Original) The data transmitting system according to claim 14, wherein said first device and said second device join address groups whose addresses are determined by the address determining system.

16. (Original) The data transmitting system according to claim 1, further comprising an address determining system that determines the third multicast address used for transmitting the data to be processed.

17. (Original) The data transmitting system according to claim 16, wherein said second device joins an address group whose address is determined by the address determining system.

18. (Original) The data transmitting system according to claim 16, wherein said first device includes said address determining system.

19. (Original) The data transmitting system according to claim 16, wherein said second device includes said address determining system.

20. (Original) The data transmitting system according to claim 1,
wherein said second device is a printer,
wherein the data to be processed is print data.

21. (Currently Amended) A terminal device for transmitting data to be processed through a TCP/IP-based network to which a plurality of devices are connected, comprising:
an identification information obtaining system that transmits first data
~~containing a second multicast address through the network using a first multicast address to~~
obtain identification information of the plurality of devices on the network; and

a data transmitting system that transmits the data to be processed through the network using ~~the~~ second multicast address ~~contained in the first data~~ in order that the data to be processed is received by a requested device which is one of devices which transmit the identification information to said identification information obtaining system using a third multicast address designated by said terminal device and said requested device being designated by said terminal device as a destination of the data to be processed.

22. (Original) The terminal device according to claim 21, further comprising a selecting system that selects one of the devices which transmit the identification information to said identification information obtaining system,

wherein said data transmitting system transmits the identification information of the selected one of the devices with the data to be processed through the network using the second multicast address,

wherein the selected one of the devices is the requested device.

23. (Currently Amended) A terminal device for receiving data to be processed through a TCP/IP-based network to which a plurality of devices are connected, comprising:

an identification information transmitting system that transmits, in response to a request transmitted by a requesting device on the network using a first multicast address, first data containing identification information of said terminal device through the network using a second multicast address, ~~said second multicast address being contained in the request transmitted by said requesting device;~~ and

a data receiving system that is configured to receive data transmitted from said requesting device using a third multicast address if the data transmitted from said requesting device is data having said terminal device as a designated destination.~~that receives the data to be processed which is transmitted by said requesting device through the network using a third multicast address.~~

24. (Currently Amended) A method of transmitting data to be processed through a TCP/IP-based network to which a plurality of devices including a requesting device and a requested device are connected, the data to be processed being transmitted by said requesting device and received by said requested device, the method comprising the steps of:

transmitting from said requesting device a search packet ~~and a second multicast address~~ through the network using a first multicast address so as to obtain identification information of the devices;

receiving at the requesting device the identification information transmitted by at least one of the plurality of devices using ~~at the~~ second multicast address designated by said requesting device;

selecting and designating one of devices whose identification information has been received as a destination device; and

transmitting from the requesting device the identification information of the selected ~~one of the devices~~ destination device and the data to be processed through the network using a third multicast address.

25. (Currently Amended) A method of transmitting data to be processed through a TCP/IP-based network to which a plurality of devices including a requesting device and a requested device are connected, the data to be processed being transmitted by said requesting device and received by said requested device, the method comprising the steps of:

transmitting from said requesting device a search packet ~~and a second multicast address~~ through the network using a first multicast address so as to obtain identification information of the devices;

receiving at the requesting device the identification information transmitted by at least one of the plurality of devices using ~~at the~~ second multicast address designated by said requesting device;

selecting and designating one of devices whose identification information has been received as a destination device;

transmitting from the requesting device the identification information of the selected ~~one of the devices~~ destination device and the data to be processed through the network using a third multicast address;

receiving an acknowledgement of receipt of the data to be processed transmitted by said requested device using a fourth~~forth~~ multicast address; and

repeating the step of transmitting identification information and data to be processed and the step of receiving the acknowledgement of receipt until the data to be processed is completely transmitted.

26. (Currently Amended) A method of receiving data to be processed through a TCP/IP-based network to which a plurality of devices including a requesting device and a requested device are connected, the data to be processed being transmitted by said requesting device and received by said requested device, the method comprising the steps of:

receiving from the requesting device a search packet ~~and a second multicast address~~ which ~~is~~are transmitted through the network using a first multicast address;

transmitting identification information through the network using ~~a~~the second multicast address designated by said requesting device; and

receiving from the requesting device the identification information of said requested device and the data to be processed which are transmitted through the network using a third multicast address, if the data transmitted from said requesting device is data having said requested device as a designated destination.

27. (Currently Amended) A method of receiving data to be processed through a TCP/IP-based network to which a plurality of devices including a requesting device and a

requested device are connected, the data to be processed being transmitted by said requesting device and received by said requested device, the method comprising the steps of:

receiving a search packet ~~and a second multicast address which is~~are transmitted by said requesting device through the network using a first multicast address;

transmitting identification information through the network using ~~the~~ second multicast address;

receiving the identification information of said requested device and the data to be processed which are transmitted by said requesting device through the network using a third multicast address designated by said requested device, if the data transmitted from said requesting device is data having said requested device as a designated destination;

transmitting an acknowledgement of receipt of the data to be processed using a forth multicast address when the data to be processed is received; and

repeating the step of receiving the identification information and data to be processed and the step of transmitting the acknowledgement of receipt step until the data to be processed is completely received.

28. (Currently Amended) A method of transmitting data to be processed through a TCP/IP-based network to which a plurality of devices including a requesting device and a requested device are connected, the data to be processed being transmitted by said requesting device and received by said requested device, the method comprising the steps of:

transmitting a request ~~containing a second multicast address for obtaining~~ identification information of the plurality of devices except said requesting device from the requesting device through the network using a first address which does not specify a destination;

receiving the request at the requested device;

transmitting the identification information from the requested device through the network using ~~at~~ the second multicast address designated by said requesting device in reply to the request;

transmitting from the requesting device the identification information of the requested device and the data to be processed through the network using a third multicast address, said requested device being designated as a destination of the data to be processed; and

receiving the identification information and the data to be processed at the requested device, if the data transmitted from said requesting device is data having said requested device as a designated destination.

29. (Currently Amended) A machine-readable medium storing a computer program executable on a data processing device and usable to transmit data to be processed through a TCP/IP-based network to which a plurality of devices including a requesting device and a requested device are connected, the data to be processed being transmitted by said requesting device and received by said requested device, the program comprising instructions for:

transmitting from said requesting device a search packet ~~and a second multicast address~~ through the network using a first multicast address so as to obtain identification information of the devices;

receiving at the requesting device the identification information transmitted by at least one of the plurality of devices using ~~at~~ the second multicast address designated by said requesting device;

selecting and designating one of devices whose identification information has been received as a destination device; and

transmitting from the requesting device the identification information of the selected ~~one of the devices~~ destination device and the data to be processed through the network using a third multicast address.

30. (Currently Amended) A machine-readable medium storing a computer program executable on a data processing device and usable to receive data to be processed through a TCP/IP-based network to which a plurality of devices including a requesting device and a requested device are connected, the data to be processed being transmitted by said requesting device and received by said requested device, the program comprising instructions for:

receiving from the requesting device a search packet ~~and a second multicast address~~ which is transmitted through the network using a first multicast address;

transmitting identification information through the network using ~~at the~~ second multicast address designated by said requesting device; and

receiving from the requesting device the identification information of said requested device and the data to be processed which are transmitted through the network using a third multicast address, if the data transmitted from said requesting device is data having said requested device as a designated destination.

31. (Currently Amended) A machine-readable medium storing a computer program executable on a data processing device and usable to transmit data to be processed through a TCP/IP-based network to which a plurality of devices including a requesting device and a requested device are connected, the data to be processed being transmitted by said requesting device and received by said requested device, the program comprising instructions for:

transmitting a request ~~containing a second multicast address~~ for obtaining identification information of the plurality of devices except said requesting device from the

requesting device through the network using a first address which does not specify a destination;

receiving the request at the requested device;

transmitting the identification information from the requested device through the network using ~~the~~ second multicast address designated by said requesting device in reply to the request;

transmitting from the requesting device the identification information of the requested device and the data to be processed through the network using a third multicast address, said requested device being designated as a destination of the data to be processed; and

receiving the identification information and the data to be processed at the requested device, if the data transmitted from said requesting device is data having said requested device as a designated destination.

32. (Currently Amended) The data transmitting system according to claim 1, wherein said first device further including:

a requesting system that transmits a join request to join a print multicast group using the first address in response to the received second data containing the identification information of said second device, and

said second device further including:

a request receiving system that receives the join request and a availability transmitting system that transmits a reply using said second multicast address to indicate said second device availability.

33. (New) The data transmitting system according to claim 1, wherein said first device notifies said second device of the second multicast address and,

wherein said identification information transmitting system of said second device uses the second multicast address notified by said first device.